

CLAIMS

1. Device for monitoring the application of a motor vehicle automatic parking brake, comprising driven
5 means (10) of applying at least one brake pad (2) to a brake disk (1), characterized in that it comprises measurement means (5) for measuring a physical property of the pad (2), the value of which varies as a function of the force with which the pad is applied to the brake
10 disk (1).

2. Device according to Claim 1, characterized in that it comprises comparison means (9) for comparing the measured values of said property with prerecorded
15 values, these comparison means (9) being connected to means (10) for commanding application of the brake.

3. Device according to Claim 1 or 2, characterized in that said physical property is an electrical magnitude
20 associated with the conductivity or resistivity of the brake pad (2) and in particular of its friction lining (3).

4. Device according to one of the preceding claims,
25 characterized in that the material of the friction lining (3) of the pad (2) contains an addition of an electrically conducting component (C) in granular or powder form, such as copper or carbon black for example.

30 5. Device according to one of Claims 1. to 3, characterized in that the friction lining (3) of the brake pad (2) comprises a wear indicator (11) formed of an electrically conducting element embedded in the
35 friction lining (3) and in that an electrically conducting component (C) in granular or powder form is added to the material of the friction lining (3) solely between the wear indicator (11) and a backing (4) to which the friction lining (3) is attached.

6. Device according to one of the preceding claims, characterized in that it comprises a measurement apparatus (5), such as a volt meter for example, and an electrical supply circuit (6) which are electrically connected to the friction lining (3) of the brake pad (2) and to a metal component such as the brake disk (1) or a backing (4) of the friction lining (3) or to the vehicle electrical ground.

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7. Method for monitoring application of a motor vehicle automatic parking brake comprising driven means of applying at least one brake pad (2) to a brake disk (1) mounted on a wheel of the vehicle, characterized in that it essentially consists, following a command to apply the automatic parking brake, in measuring a physical property of the brake pad that varies as a function of the force with which this pad is applied to the brake disk (1), in comparing the measurement with a prerecorded value and, if the measurement is below the prerecorded value, in once again commanding the application of the parking brake and/or in emitting a signal for the attention of the driver of the vehicle.

25 8. Method according to Claim 7, characterized in that it consists in measuring said property of the brake pad (2) at different instants following a command to apply the parking brake, in comparing measured values with corresponding prerecorded values and in once again commanding the application of the parking brake if at least one of the measured values is below the corresponding prerecorded value.

35 9. Method according to Claim 8, characterized in that it consists in measuring an initial value of said property before the parking brake is applied, another value of this property while the brake is being applied by the driven application means, another value of this property following mechanical locking of the brake and

return of the application means to the position of rest.

10. Method according to Claim 9, characterized in that
5 it further involves a subsequent step of measuring said property as the brake cools.

11. Method according to Claim 8, 9 or 10,
characterized in that it consists in comparing
10 differences and/or ratios of the measured values of said property with differences and/or ratios of the corresponding prerecorded values.

12. Method according to one of Claims 8 to 11,
15 characterized in that it consists in measuring an electrical magnitude associated with the conductivity or electrical resistivity of the brake pad (2) or of its friction lining (3).